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Product Overview

Perfect for retrofit and new construction projects alike, the Latch M is our mortise lock built for every door.

From apartment doors to amenity spaces, this device is designed to be easy to install, without requiring additional infrastructure like a hub or a router. As a result, Latch M empowers more buildings of all shapes and sizes to benefit from LatchOS, an ecosystem of software, products, and services that powers all of a building's most important capabilities through five customizable modules.

Back-up unlocking options.

Our Inductive Jumpstart™ feature provides a backup option to power the Latch M, even if the batteries die. Using Qi-compatible power-sharing from a smartphone or external battery pack, users or property managers can give the device enough power to unlock, ensuring that people can access their spaces.

Latch M2 - Webpage

Latch M2 - Installation guide

Latch M2 - Spec Sheet

Best Practices and Field Notes

Best Practices

1. **Inspect Mechanical Operation**
   a. Prior to service inspect hardware and how it functions: Is there friction or drag when operating existing hardware?
2. **Inspect Door Frame**
   a. Inspect the door frame to confirm depth is appropriate for the deadbolt.
3. **Consider Environmental Factors**
   a. Be mindful of any weather stripping or gaskets on the door or door frame that may produce added pressure when the door is closed.
4. **Evaluate Door Prep**
   a. Double-check door prep to confirm all boreholes are level and centered.
5. **Be Mindful of Beveled Doors**
   a. Take special care when working on a door with a door bevel.
6. **Ensure Device Handing is Configured & Configured Properly**
   a. Ensure that the mechanical handing configuration has been set properly according to the installation instructions.
7. **Check and confirm the latch bolt position AND latch slide position screws have been configured correctly**
   a. These changes are done to the mortise cartridge.
   b. The position is based on the door swing and handing.
8. **Do Not Torque or Over Tighten Set Screws**
   a. Do not over-tighten screws, particularly when working on a hollow door. Overtightening can warp the door, leading to misalignment.
9. **Verify Device is Working as Intended Before Securing the Door**
   a. Test unlock and lock prior to closing and securing the door.
10. **Bring Necessary Tools & Backup Latch Hardware**
    a. If possible, always bring an additional Latch unit, along with hardware tools to ensure you're fully equipped to service the issue, regardless of described symptoms/issues.

Field Notes

1. Always double the latch bolt position and the screws selecting the latch slide position are in the desired configuration.
2. Be mindful of weather stripping as we've seen weather stripping cause pressure that prevents the unit from successfully locking.
3. **Any time a unit is power cycled - either power is disconnected and/or batteries are removed or replaced - the unit will require a manual door update using the consumer Latch App (instead of the Manager App) once it has rebooted.**
4. Mortise cable
   a. Latch M2 has 8 pins
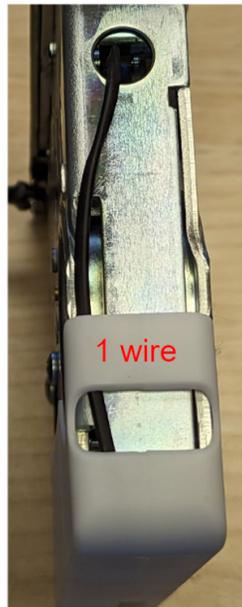
LCT A4315-PDK

Montreux

For Install and Service

1. **Tools**
   a. Phillips #2 Screwdriver
   b. iOS Mobile Device
      1. Supported devices
      2. The latest version of the Latch Manager App (only available on iOS).

2. **Lockout**
   a. Drill
   b. Metal Center Punch
   c. ⅛" & ¼" size drill bits

3. **Permissions (Confirm Access)**
   a. Confirm user has the correct access permissions
   b. Latch Manager App (only available on iOS).
      1. Device Management Permissions
      2. Unit Unlock Access
      3. Latch App (iOS and Android)
         a. Unit Unlock Access
         b. This is needed to perform a test unlock on the unit - note PM will have to set this up.

Latch Specification Guide

Onboarding

1. **Add a device**
   a. Once you have installed the Latch device, you need to add and save the device's information:
      i. Open the [Latch Manager App](#).
      ii. Select the 'New Door' icon in the top right corner
      iii. You'll then be prompted to scan the QR Code on the Latch Device
      iv. Scan the QR Code on the back panel of the device on the inside of the door
      v. Select the desired Portfolio & Property Information of the property you are installing in

2. **Assign or create a door**
   a. If you have pre-created a door in Latch Manager you can assign it by selecting 'Door Name'
   b. If you have not [pre-created](#) the door you'll need to create one. To do so:
      i. Enter the door or apartment name.
      ii. Select the door type. [Learn more about door types.](#)

3. **Set-Up the device**
   a. Requires at least 20% battery life on battery-powered devices.
   b. Select the latest firmware version.
   c. You'll then be prompted to go through the setup process.
   d. Select 'Start.'
   e. The Latch Device should then start updating. (Note: The update can take 10-15 min, do not step away from the device or navigate out of the Manager app).
   f. Once successful, select 'Next.'

4. **Test unlock**
   a. You will then be prompted to test unlock by tapping 'Tap to unlock.'
   b. Check that the device is unlocked and the door opened.
   c. Select 'Next.'
   d. Select 'Finish.'

5. **Test lock**
   a. Depending on the device and configuration, the door will re-lock after 5s (Latch R), 10s (Latch M, Latch R), when the thumb-turn is thrown (Latch C2), when the lens is tapped (Latch C1).
   b. Make sure that the device re-locks as expected prior to closing and securing the door.

Troubleshooting Workflow

1. **Confirm User device is functioning properly**
   a. Confirm that the device being used to interface with the Latch device.
      i. Is compatible with Latch (underlined: supported models here).
      ii. Has strong and reliable cellular or WiFi service.
         1. Without adequate cellular or wifi service to the user's device, Updates and Firmware Upgrades will fail.
      iii. Has Bluetooth enabled.
      iv. Isn't in a protective case that may interfere with the performance.

2. **Update and Firmware Upgrade**
   a. Ensure the Latch device has been updated with the Latch App.
   b. Ensure that the Latch Device has been upgraded to the latest version of the firmware.

3. **Issues with the Latch App or Latch Manager App**
   a. Check for any updates that may be available for your Latch App (iOS and Android) and Latch Manager App (only available on iOS).
   a. Toggle the mobile device's Bluetooth settings off, and then back on.
   a. Power cycle the mobile device (turn it off, wait for 30 seconds, and restart the device).
      i. If Android device, perform the Bluetooth cache clear and location services toggle.
   b. Log out of and back into the Latch App.
   c. Delete and reinstall the Latch App.
      i. Ensure your phone's Bluetooth and Location settings are on, as well as the Latch App Bluetooth and location settings.

4. **Check the Lens**
   a. Do the LEDs on the lens light up when the lens is touched?
      i. If not, follow the power troubleshooting steps below.
   b. Are any LEDs lit continuously and/or pulsing
      i. LED feedback instances
         1. **Denial of Service (DoS):**
            a. The LED on the Latch Lens located in the "12 o'clock" position, when illuminated indicates **that another device**

is connected to the lens over Bluetooth (BLE). If the Latch device detects continuous attempts to connect via BLE, it will automatically go into DoS mode after 50 failed attempts and BLE unlock will no longer be available.

b. DoS mode is a feature that has been incorporated into the Latch Lens functionality to prevent unauthorized blocking of a Latch device via continuous BLE connection attempts.

c. Once a lock is put into DoS mode, it remains in that state for 5 minutes, or until the device is reset or a user successfully authenticates using either an NFC card or a passcode.
    i. **NOTE:** For any Geneva device, the user only needs to touch the Lens to exit DoS mode.

d. After 5 minutes of inactivity, the device will resume normal advertising in order to prevent inadvertently extended lockouts.

2. **Rate Limiting Mode (RLM):**
    a. Rate limiting mode is indicated by the digits 5 and 6 flashing on the Lens.

    b. 20 consecutive NFC or Passcode failures put the device into rate limiting mode (RLM). While in this state, the device will not accept those types of accesses for 5 minutes. After 5 minutes, SOS mode starts where NFC and passcodes will be allowed three times before entering RLM mode again if they continue to fail.

    c. Successive RLM entries will increase the blocking access time by 5 minutes up to 25.

    d. In order to exit Rate Limiting Mode, simply enter a correct Door Code, use a valid keycard, or perform a BLE unlock via the Latch App. If one of the authentication attempts

results in a successful unlock the lock moves into normal mode, if not it moves back into RLM mode.

5. **Check Power**
   a. When a user touches the lens on the Latch device, the LEDs should light up with a numeric display.
   b. If the device fails to respond, attempt using a Qi Power Bank to jumpstart the device.
   c. **Inductive Jumpstart**: Powering a Latch M2 if the batteries fail
      i. The battery level of your Latch M2 updates passively after unlocking with the Latch App or actively after updating the device. In the unlikely event that the batteries fail before you can replace them, you can power the Latch M2 with a Qi-compatible power bank by following the steps below:
      ii. Get a Qi power bank (such as the one linked here or a compatible 2-way power share enabled phone).
      iii. Turn the power bank on and hold the charging coil over the center of the lens. Note that charging coils vary from device to device, but the center is a good bet. It is ok if you need to rotate the thumb-turn slightly to get it over the center.
      iv. You will hear a buzz as the M2 boots up. This means you have found the right location. Keep holding the power bank or phone in power share mode in this location.
      v. While continuing to power the lens via the power bank, perform a BLE unlock with a device that has Latch App access to the lock. You should hear a click as the M2 unlocks.
      vi. Once you hear the click, you're good to remove the power bank and unlock your M2.
      vii. Replace the dead batteries before closing and locking the door again.
   d. Watch our Inductive Jumpstart training video here.
6. **If the jumpstart is successful, replace the batteries**
   a. 6 AA non-rechargeable batteries.
   b. Install batteries with the correct orientation.
   c. The new batteries should all be the same brand name.
      i. Duracell is recommended.
7. **Confirm that there is no damage to the cable.**
   a. The cable should be free to move around and not be pinched or kinked.
   b. Confirm that the six pins that the cable plugs into are not bent or missing.
   c. Confirm that the lens cable is properly/fully seated in the connector.

If jumpstarting the device has failed and the device needs to be drilled out, please reach out to Support@latch.com for guidance.

 *See the Advanced Technical Support guide for additional troubleshooting steps

8. Check for broken hardware/environmental impacts

Check for overall damage to the device.
  i. Are there any signs of force or any noticeable scratches, cracks, or breakage?
  ii. Is there anything noticeable impacting the hardware?
      1. Is the weather stripping unusually thick, requiring the user to manually push or pull the door closed and into the secure position to be able to engage the deadbolt?

9. Check Latch device functionality

a. Does the device unlock when access is attempted?
  i. Normal unlock sequence:
      1. (Bluetooth) The user opens the app and clicks unlock (or the app automatically starts to unlock through proximity once the lock is open) OR (NFC) a Latch Keycard card is brought up to the lens OR (Doorcode) a code is input (a door update may be needed for the keycard and doorcode unlocks to work).
      2. The center LEDs light up and then the circle of LEDs opens clockwise.
      3. The user should hear a momentary click sound and be able to turn the lever to open the door.

10. Check Device Configuration in the App

a. Confirm Latch device has been activated.
b. Add a device.
c. Assign or create a door.
d. Set up the device.
e. Test unlock/lock.
f. Configure device settings in the app if applicable (Activation Steps support link).

RMA Process

Overview

In order to replace a defective device, receive a replacement unit, and return the defective unit to our QA team for evaluation, an RMA will need to be submitted through our RMA process.

Process Overview

1. Contact Latch Support with RMA details:
   a. support@latch.com
   b. +1 (888) 808-0670
2. Required Details
   a. Device Serial
   b. Associated Property Name
   c. Associated Door Name
   d. Issue Description / Symptoms
   e. Troubleshooting Steps Attempted
   f. Shipping Address (for a new device)
   g. Shipping Contact Name
   h. Shipping Contact Email
   i. Shipping Contact Phone Number

Advanced Technical Support Guide

**NOTE: If the below troubleshooting steps do not resolve your issue, please reach out to
Support@latch.com and our Support Team will be happy to assist you.**

Cylinder Failure Troubleshooting

Symptoms

1. The device cannot be mechanically unlocked or locked using a physical key.
2. The cylinder rotates freely when attempting to unlock/lock using a physical key.
3. Users experience resistance or "crunchiness" when unlocking with a mechanical key.

Verify Cylinder Set Screw is Set Properly

In the event that the cylinder set screw is not properly set, the cylinder may loosen & spin
freely, and/or the cam may be obstructed -- preventing unlocks (or smooth unlocks) with the
mechanical key.

1. Remove the faceplate from the edge of the door.
2. Confirm that only the set screw closest to the cylinder and front escutcheon is
   screwed in tightly.
3. If the set screw furthest from the cylinder & front escutcheon is screwed in,
   unscrew it until the cylinder cam is unobstructed.

NOTE: Do not unscrew all the way, as the screw may fall into the mortise cartridge.
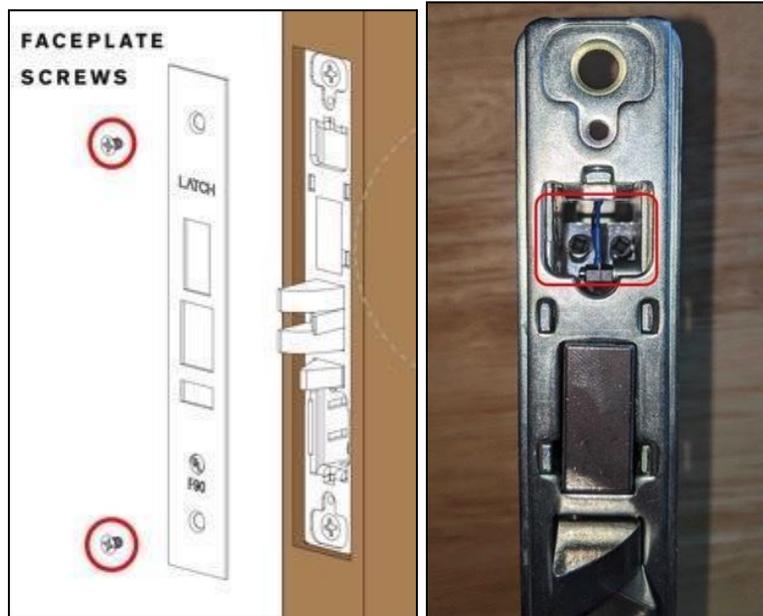
Verify Overall Cylinder is Set Properly

In cases where the door thickness is slightly larger than the door thickness we specify in our product specifications, the integrator will be required to screw the cylinder further into the unit in order for the cylinder cam to smoothly and successfully disengage the latch bolt / throw the unit deadbolt. (This means the cylinder will not be flush with the unit face).

1. Remove the faceplate from the edge of the door.
2. Loosen the cylinder set screw.
3. Using a key, rotate the entire cylinder unit (not just the keyway) 360° clockwise.
   a. (Note: The cylinder may also need to be unscrewed (rotated 360° counter-clockwise) in order to attain proper alignment & operation.
4. Tighten the cylinder set screw.
5. Perform a test to determine if the cylinder unlocks/locks smoothly & successfully.
6. If not, repeat steps 1-5 until the cylinder unlocks & locks smoothly & successfully.

1.   2.   3.
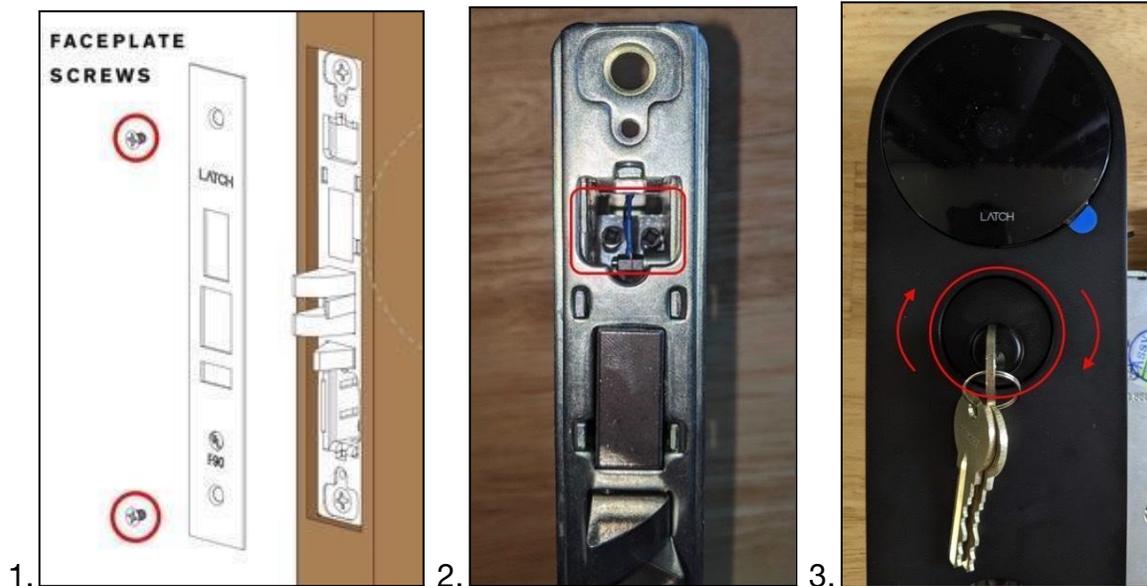
Verify Possible Over-Tightening of Chassis Screws

In some cases, if the unit chassis screws are overtightened, it may cause the door to warp slightly, and/or misalignment with the mechanical components of the unit -- creating jams and pressure points in the cartridge, preventing smooth and successful mechanical unlocks. In these cases, loosening the overall chassis screws may improve the issue.

1. Remove the faceplate on the edge of the door.
2. Slightly loosen the cartridge (not cylinder) set screws.
3. Remove the back escutcheon.
4. Remove the battery tray.
5. Slightly loosen the set screws for the front escutcheon and/or lever until the key turns smoothly.
6. Perform steps in reverse order once adjusted to reassemble the device.
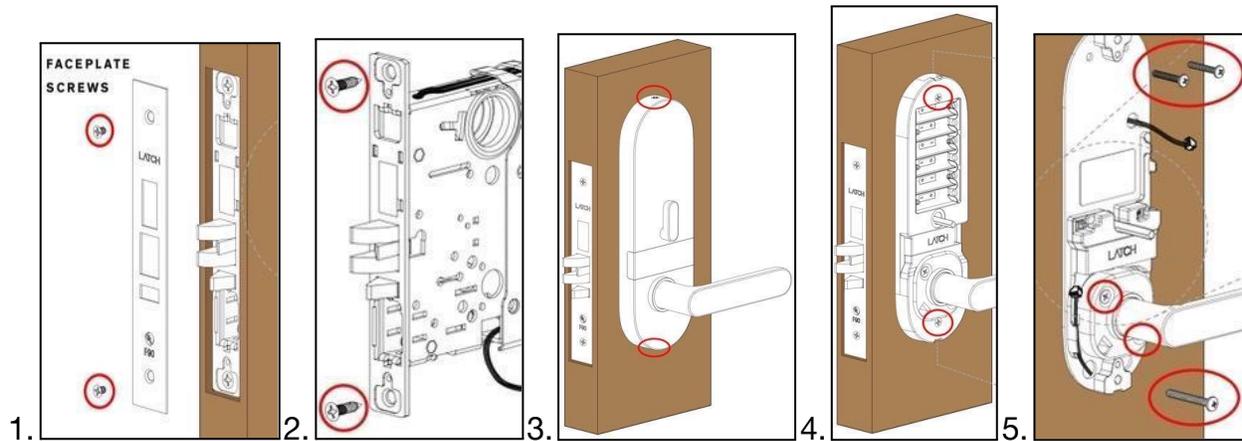
Device Replacement

Overview

In the event troubleshooting is unsuccessful and the device requires replacement, it's important that the device is replaced successfully in order to ensure access is not impacted. The next steps will outline how to properly replace a device.

Deactivate Defective Unit

Deactivating removes all accesses from the device and dissociates it from the door to which it was assigned. Once deactivated, you can assign a different door to the device.

1. Ensure you have access to the door (unlock access) - if you don't, ask your administrator to give you access.
2. Using the Manager App, navigate to the devices list.
3. Select the door which you want to deactivate the Latch device from.
4. Select 'deactivate.'

Activate New Device

NOTE: Ensure you select the same door name when programming the new Latch device to ensure you restore access to the right door for all the right people.

Once you have installed the Latch device, you need to add and save the device's information:
1. Open the Manager App.
2. Select the 'New Door' icon in the top right corner.

3. You'll then be prompted to scan the QR Code on the Latch Device.
4. Scan the QR Code on the back panel of the device on the inside of the door.
5. Select the desired Portfolio and Property Information of the property you are installing in.

Once the device is assigned to the door, you must:
1. Continue setting up the device via the app.
   a. Perform firmware upgrade
      i. **NOTE: This requires at least 20% device battery life and may take up to 15-20 minutes.**
   b. Perform test unlock.
   c. Perform test lock.

Door Prep Evaluation & Troubleshooting

Symptoms

1. The device is not catching the door strike and locking.
2. Issues with thumb-turn or deadbolt extension.
3. The door is not unlocking.
4. Noticeable tension when manually turning the thumb-turn.

Evaluation/Troubleshooting

1. Ensure the mortise cartridge is not forced into the mortise cavity of the door.
   a. If the cartridge is forced into an opening that is too small, it may cause moving parts to jam or cables to be pinched or cut.
   b. If the mortise pocket in the door is too small, make necessary adjustments to the door using a file, chisel, etc. **See Note in Red**
2. Ensure weatherstripping on the door frame is not adding pressure to the latch bolt or deadbolt.
   a. If weatherstripping is an issue, an alternative seal thickness may be used or the strike plate may be moved slightly to accommodate the thicker seal. **See Note in Red**
3. Check to ensure the hole in the door frame where the deadbolt enters is at least 1" deep.
4. Check to ensure the door is not "sagging" and that the deadbolt is properly aligned with the hole in the door frame.
   a. You can do this by closing the door and extending the deadbolt. It should extend and retract freely. If there is an obstruction, shine a light into the crack of

the door while attempting to extend the deadbolt to see at what point the obstruction is.

NOTE: If any fabrication of the door or frame is necessary, escalate to property management to advise.

Firmware Upgrade Troubleshooting

Symptoms

During the Firmware Upgrade process on a Latch M device, you may receive a red error screen appearing on the Latch Manager app. This can happen either during the initial activation process or during a routine Firmware Upgrade after installation. This indicates that the firmware upgrade process failed.

Troubleshooting

Firmware upgrade should be reattempted after completion of each step.
1. Technicians should reattempt Firmware Upgrade at least twice after failure.
    a. Often the issue will resolve upon a second or third attempt with no further action.
2. Confirm that the iOS device is connected to WiFi. If it isn't, please connect to a WiFi network rather than using cell data.
3. Toggle the iOS device's Bluetooth settings off, then back on.
    a. Settings > Connection Settings > Bluetooth
4. Power cycle the iOS device (turn your phone off for 30 seconds before re-starting).
5. Power cycle the Latch device by removing and reinstalling a battery.
6. Update the Device.
    a. Open the Latch App > My Doors > Select Door > Update > Press the "Update" button when close to the door/device.
    b. Detailed instructions for updating can be found in this [Support Article](#).
7. Repeat steps 4 and 5 and again attempt the Firmware Upgrade.
8. If Firmware Upgrade continues to fail after all the steps above were followed, please contact Latch technical support at support@latch.com.

Mechanical Lock/Unlock Failure Troubleshooting

Symptoms

1. The device displays a successful unlock prompt (clockwise LED animation on the lens, blue check mark in Latch App) but does not successfully unlock.
2. General Unlock Failures (Latch App, Door code, Keycards).
3. The device does not automatically lock when the door is closed
4. The device Powers up unlocked.
5. General Locking Failures.

Troubleshooting at a Glance

Troubleshooting here will be similar to power troubleshooting, but will also include steps on verifying mortise body connections/power.

1. Perform a Test Unlock.
2. Replace/Inspect Batteries & Battery Tray.
3. Check Battery Tray Power Eyelets.
4. Check Home System Power Pins.
5. Check Lens Power Supply Cable.

Note: If you receive a device that is in an unlocked state upon powering up, you can quickly resolve this by performing an unlock/test unlock via the app. By performing the unlock, this sequence will trigger the unit to relock.

Check Mortise Cartridge Power Cable

With Battery Tray Removed*

1. On the lower left of the hexagonal home system, you should see a multicolored, unsealed cable leading into the center of the door.
2. Disconnect this cable for 30 seconds.
3. Reconnect the cable.
4. Ensure there is no visible damage or pinching.
5. If damaged, please contact support@latch.com for assistance.

Check Mortise Cartridge Spine Connections

NOTE: This will require the disassembly of the unit. It is best practice to attempt to power up the unit after checking the cable connections mentioned in previous steps to check if the issue has been resolved before fully disassembling the unit.

1. Once the battery tray is removed, unplug the lens and mortise cables from the home unit, and remove (2) faceplate screws and (3) screws that secure the rear plate to the front cover.
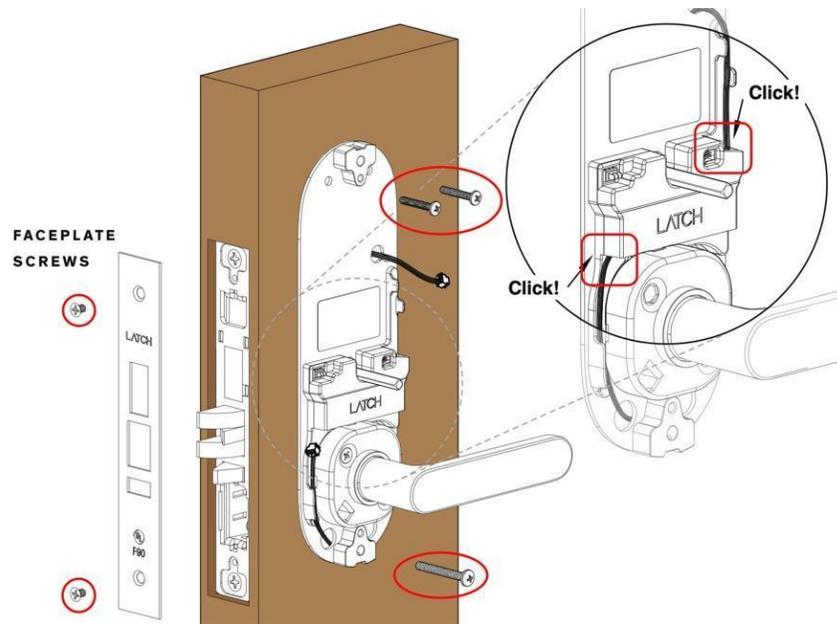
2. Carefully remove the faceplate and front cover from the door. This should leave you with the levers, home unit, and mortise remaining.
3. Remove (2) inner lever screws, levers, spindles, and home unit from the door. This should leave you with only the mortise cartridge remaining.
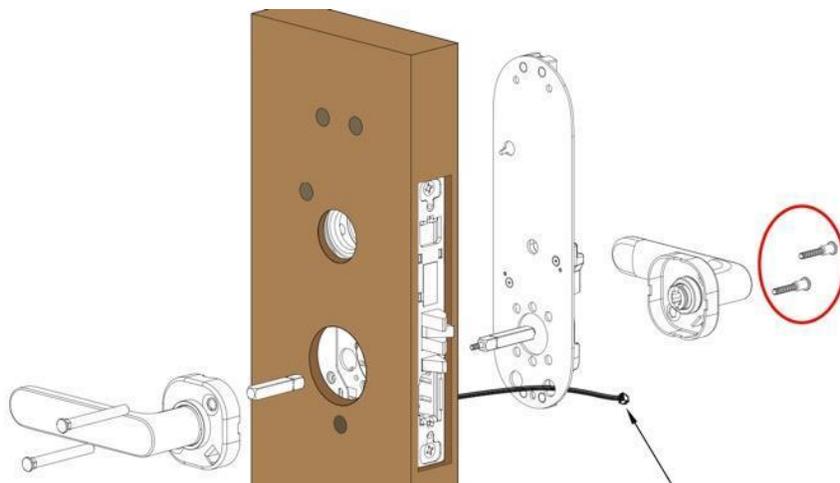
4. Remove the mortise cartridge from the door by removing the (2) screws on the top and bottom.
5. On the spine of the cartridge, you should see a white plastic cover.

6. Pull back the white cover. You will see a small board with data and power connections.
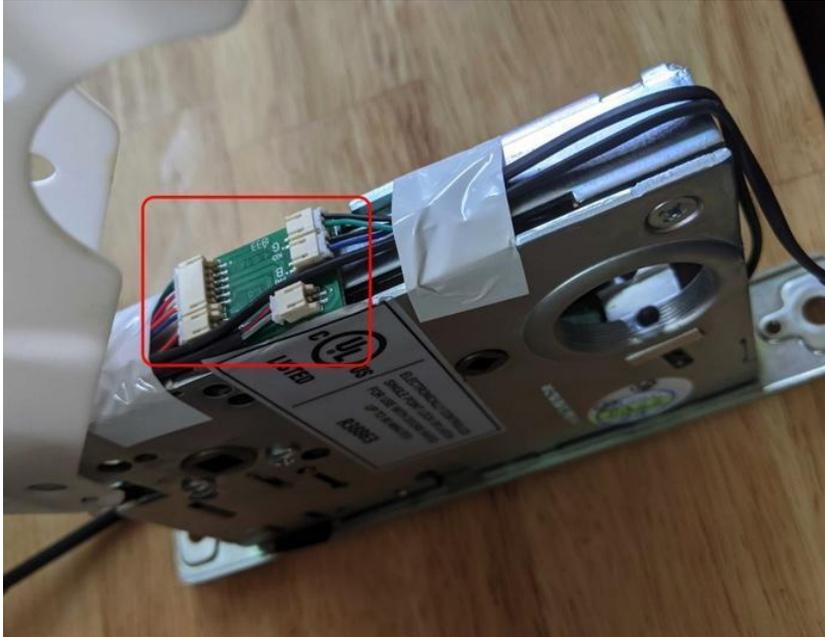
7. Reseat all connections
8. Ensure all cables are properly connected.
9. If there is any damage, please take photos and contact support@latch.com.

If Locked On the Inside and Unlocked on the Outside
>   *Note: It is likely that the handing on the lock is set incorrectly.*
1. First, remove the mortise cartridge from the door.
2. Remove the latch bolt from the mortise cartridge by unscrewing the set screw with the Allen key *(see below, left photo)*
3. Remove and rotate the latch bolt 180°, then reinstall it with the set screw on the opposite side of the lock body *(left center photo).*
4. Then, remove the (2) lever handing screws on the mortise cartridge *(see below, right center photo).*
5. Re-install (2) lever-handing screws on the opposite side of the lock body *(see below, right photo).*
6. On a Latch M device, no app reconfiguration is needed.
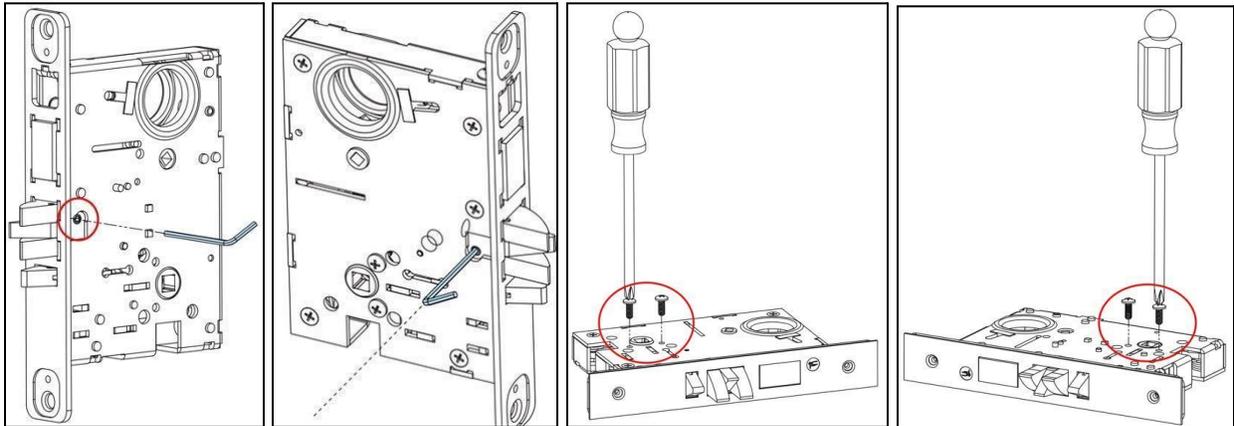
Unlocked on the Inside and Outside

1. Confirm that pressing down on each lever causes the latch bolt to retract.
   a. If the latch bolt does not move when depressing the lever, disassemble the lock and check that the lever spindle is in place.
2. Check battery percentage. If low (under 40%), change the batteries and test again.
   a. (Open App > My Doors > Select Door > Device Details)
3. Confirm the power supply cable to the mortise is not damaged or pinched
   a. Reference: Checking Mortise Power Cable
4. Take photos of any visible damage and send them to support@latch.com.
5. If the above troubleshooting does not resolve the issues, please contact Latch technical support at support@latch.com.
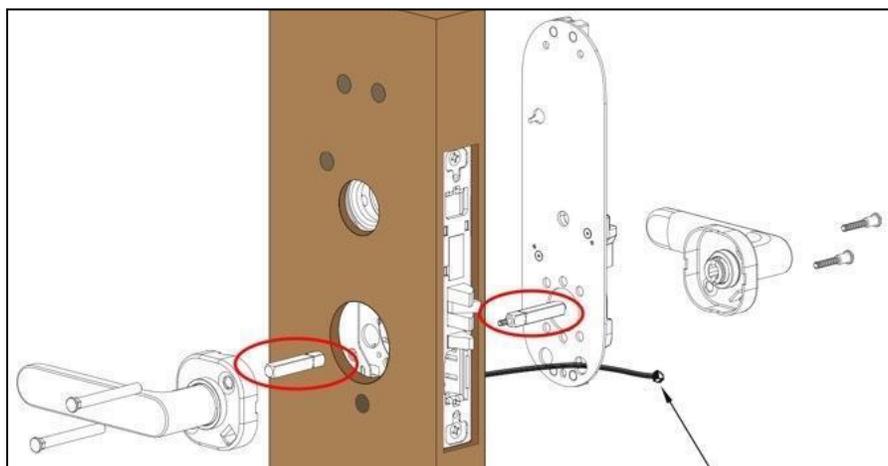
Reminder: Any time a unit is power cycled (either power is disconnected and/or batteries are removed or replaced) the unit will require an update once it has rebooted.

Power Failure Troubleshooting

Symptoms

1. Numeric LEDs do not illuminate when the device lens is tapped
2. Unlock Failures (Latch App, Door code, Keycards)
3. Update Failures
4. The device does not lock when the device is unlocked & lens is tapped
5. Locking Failures

NOTE: The M stays unlocked if the batteries die midway through an unlock and will allow the handle to swing freely from both sides (this allows users to replace the batteries rather than having it auto-relock).

It has been determined it is not a security flaw because it happens during an unlock and it's within expectations that batteries might eventually fail. The device isn't indicating that it's locked when it's not, so this is actually "best case" behavior and avoids lockout situations.

Replace/Inspect Batteries

Note: Removing the (2) screws on the top and bottom of the rear trim will expose the battery tray.

1. Install <u>NEW</u> batteries
   a. 6 AA non-rechargeable batteries.
   b. Install batteries with the correct orientation.
   c. The new batteries should all be the same brand name.
      i. Duracell is recommended.
2. If new batteries have been installed and the unit does NOT power on:
   a. Confirm batteries have been installed with the correct orientation
      i. battery orientation guide
   b. Remove all batteries to inspect the battery tray for noticeable damage
      i. Are all battery tray contacts in place?
      ii. Are all the metallic springs and tabs in the tray?
      iii. Is the battery tray cracked or broken?
      iv. Are there signs of battery degradation?

1. Are they leaking?
2. Are they expanded or split open?
3. Is there corrosion?
    v.   Are there signs of water damage?
        1. Is there water present in the battery tray?
        2. Are there signs of corrosion?

Check Battery Tray Power Eyelets

1. Confirm Battery tray power transfer eyelets are not damaged.
2. Remove the unit backplate by removing (2) screws.
3. Remove the battery tray by removing (2) additional screws.
4. On the back of the battery tray, you should see two gold-colored eyelets.
5. Confirm if they appear to be damaged/broken.
6. If they appear in order, please check the home system power pins.
   a. Instructions are in the following section.
7. If damaged, please contact support@latch.com for assistance.
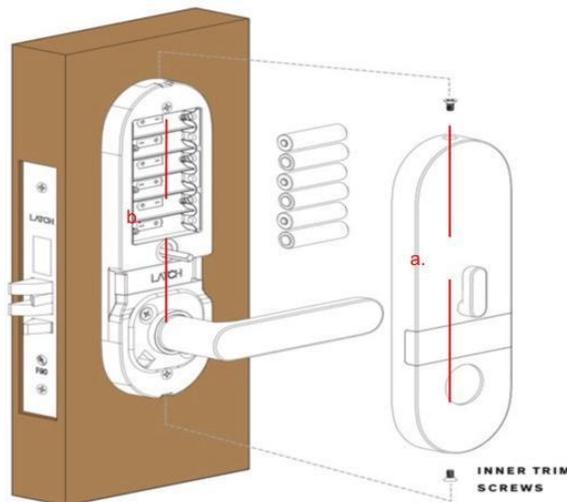
Check Home System Power Pins

With Battery Tray Removed

1. On the mounting plate of the device, you should see a black hexagonal unit.
2. Facing outwards you should see two gold-colored pins.
3. Confirm if they appear to be damaged/broken.
4. If they appear in order, please check the lens power supply cable.
    a. Instructions are in the following section.
5. If damaged, please contact support@latch.com for assistance.

Check Lens Power Supply Cable

With Battery Tray Removed

1. On the upper right of the hexagonal home system, you should see a black, sealed cable leading into the center of the door.
2. Disconnect this cable for 30 seconds.
3. Reconnect the cable.
4. Ensure there is no visible damage or pinching.
5. If everything appears to be in order, please check the mortise cartridge power cable.
   a. Instructions are in the following section.
6. If damaged, please contact support@latch.com for assistance.